Country Profile: Iceland

Country Profile (PDF)

Country Resources

Topographic

Series	Publisher	Scale	Years	Sheets
Iceland 1:50,000 Scale Topographic Maps (DMA C761)	DMATC	1:50,000	1970 – 1990	14

Nautical

Series	Publisher	Scale	Years	Sheets
Iceland Nautical Charts (All Scales)	ICG	Varies	1915 – 2021	84

Thematic

Series	Publisher	Scale	Years	Sheets
The World 1:30,000,000 Scale Topographic Map Series 1145 (NGA)	DMA	1:30,000,000		2

Global Census Archive: GIS Census Data

East View Geospatial has an ongoing effort to add GIS census data to our Global Census Archive program. Please contact us for the status and availability of Iceland census resources.

Global Resources

Topographic

Series	Publisher	Scale	Years	Sheets
Soviet Military City Plans	VTU GSh	Varies	1944 – 2003	3,021
Soviet Military 1:100,000 Scale Topographic Maps	VTU GSh	1:100,000	1947 – 1999	24,897
Soviet Military 1:200,000 Scale Topographic Maps	VTU GSh	1:200,000	1949 – 2009	17,799
Soviet Military 1:500,000 Scale Topographic Maps	VTU GSh	1:500,000	1953 – 1998	3,093
Soviet Military 1:1,000,000 Scale Topographic Maps	VTU GSh	1:1,000,000	1948 – 1994	1,089

Nautical

Series	Publisher	Scale	Years	Sheets
NGA Nautical Charts POD Certified (All Scales)	NGA	Varies	1943 – 2013	4,517

Aeronautical

Series	Publisher	Scale	Years	Sheets
Joint Operations Graphic (JOG 1501A) 1:250,000 – Aeronautical	DMA	1:250,000	1958 – 2007	6,380
Tactical Pilotage Chart (TPC) 1:500,000 Scale – Aeronautical	DMA	1:500,000	1967 – 2006	618
Operational Navigation Chart (ONC) 1:1,000,000 Scale – Aeronautical	DMA	1:1,000,000	1969 – 2001	248
Jet Navigation Chart (JNC) 1:2,000,000 Scale – Aeronautical	DMA	1:2,000,000	1971 – 1999	117

Global Navigation and Planning Chart (GNC) 1:5,000,000 Scale – Aeronautical	DMA	1:5,000,000	1981 – 1999	27

Note: East View Geospatial is continuously sourcing new resources that may not yet be listed in Global Explorer. Please contact us if you have geodata needs beyond what is listed above and we will be happy to discuss available off-the-shelf and custom solutions.

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Historical Country Mapping Information

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Country Profile (PDF)

Topographic

Detailed mapping of the interior of Iceland was first undertaken in the nineteenth century by an Icelander, **Björn Gunnlaugsson**, who made a survey of the country between 1831 and 1843, financed by the **Icelandic Literary Society**. The modern topographic survey of the country was initiated in 1902 by the **Danish General Staff** (later **Geodæstisk Institut**), beginning with a triangulation survey and the production of a plane table map series. Initially, mapping was at the scale of 1:50,000, but in 1907 this was changed to 1:100,000. Consequently, although the entire country was eventually mapped at 1:100,000 scale (Atlasblöð), the early 1:50,000 scale quarter sheets (Fjórðungsblöð) covered only the western and southern coastal areas. By 1936, the settled areas had all been mapped, and in the following year it was decided to map the remaining areas of the interior by photogrammetric methods. To this end an extensive cover of oblique air photographs of the central areas of Iceland was obtained in 1937 and 1938. The 1:100,000 scale series in 87 sheets, was completed in 1943.

In 1955 a new triangulation and geodetic survey was carried out with help from Denmark and the United States, and the following year the **Iceland Geodetic Survey** (**Landmælingar Íslands, LMÍ**)) was founded, taking over responsibility for map making from the Danish survey. In 1965, **LMÍ** bought up all stocks of Icelandic maps and reprographic material from the Danish **Geodæstisk Institut**.

Until recently, the 1:100,000 scale series remained the largest-scale map to cover the entire country (excluding a 1:50,000 scale map published by the Americans in 1950 as **AMS** (C762)). The 1:100,000 scale map is on a Lambert Conformal Conic projection, and the sheets are printed in four to seven colors with a 20 m contour interval. Since 1983, this series has been kept in print, but without further revision.

In the 1970s, a new 1:50,000 scale series (Series C761) was started in the Reykjanes Peninsula in cooperation with the American **Defense Mapping Agency** (now **National Imagery and Mapping Agency** (**NIMA**)). This five-color series is on a Transverse Mercator projection, International spheroid, and has a legend in English and Icelandic. Contours are at 20 m intervals, with supplementary contours at 10 m. Sheets of the **AMS** (C762 series), mentioned above, are also still available.

In 1988 and 1989, **LMÍ** also published the first 17 sheets of a new 766 sheet basic topographic series (Staðfræðikort) at 1:25,000 scale. These sheets cover the south-western part of Iceland. The contour interval is 5 m and the maps show considerable terrain and land cover detail. Currently, **LMÍ** is preparing to publish maps in the 1:25,000 basic map series using digital methods.

The 1:250,000 scale general map (*Aðalkort*) in nine sheets is frequently updated, and is also issued in a travel version with sheets paired and printed back to back. However, the standard version has the useful feature of an index of place names printed on the reverse of the sheets, with the names referenced to an alpha-numeric grid on the maps. The legend is in Icelandic, Danish and English. New editions also have small thematic maps printed in the margin, showing climate, geology, past volcanic eruptions and administrative boundaries.

LMÍ has also issued a number of special maps of National Parks and other areas of tourist interest (*þingvellir, Hekla, Vestmannaeyjar, Skaftafjell, Mývatn, Hornstrandir, Húsavík/Mývatn, þórsmörk/Landmannalaugar, Suðvesturland and Súrtsey*). Several angling maps of Icelandic rivers have also been published since 1993, mainly at 1:25,000 scale.

Most of the **LMÍ** maps are now available in various digital formats and, in addition, two CD-ROMs were published in 1997, each containing 112 raster-scanned maps at scales of 1:500,000, 1:250,000 and 1:50,000. One has been produced by **Radiómiðun** and the

other by **R. Sigmundsson**, both in association with **LMÍ**, and both designed for use with the GPS.

In 1990, the **Iceland Geodetic Survey** became part of the **Ministry of the Environment**, established that same year. Subsequently, it has invested in remote sensing and digital mapping equipment. A new mapping framework, Icenet 93, has also been established using GPS position fixing, and will replace the triangulation network of 1955. In 1999 **LMÍ** was relocated from Reykjavík to the town of Akranes.

Soviet military topographic mapping of Iceland exists at the following scales: 1:1,000,000 (4 sheets, complete coverage, published in 1955); 1:500,000 (8 sheets, complete coverage, published 1962-1965) and 1:200,000 (24 sheets, complete coverage, published 1955-1967). These products are available in print, digital raster and digital vector GIS formats from **East View Geospatial**.

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Nautical

Nautical charts of Icelandic waters, harbour plans of Icelandic ports and fishing charts are published by the **Icelandic Hydrographic Service** (**Sjómælingar Íslands**), Reykjavík.

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Geological/Scientific

The Survey's 1:250,000 scale series forms the base for the standard geological series (Jarðfrðikort), and for a series of aeromagnetic maps. The geological series was begun in 1960 by **Guðmundur Kjartansson**, and the sheets show both quaternary drift and bedrock deposits. Subsequently it became the work of a team of geologists and all the published sheets have been revised. The series was produced jointly by the **Museum of Natural History** (**Náttúrfræðistofnun Íslands** (**NI**)) and the **Iceland Geodetic Survey**.

In 1983, the **National Energy Authority** (**Orkustofnun**, (**OS**)), in cooperation with the **National Power Company**, started a detailed geological mapping program intended to cover the upper catchment of the ðjórsá river, the location of Iceland's principal hydroelectric power stations. The map sheets are in three versions; bedrock, superficial deposits, and hydrogeology, and they are produced to a standard specification and at scales of either 1:50,000 or 1:25,000. More recently maps of the Hengill geothermal area have also been published, and in 1996 a 1:25,000 scale set of the metropolitan area of Reykjavík was issued. These maps are available from **LMÍ**. In 1992, **OS** began using GIS, and now all geological maps are prepared in ARC/INFO.

A single-sheet 1:500,000 scale geological bedrock map was first issued in 1989.

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Imagery

A map of earthquake epicentres and volcanic systems in Iceland was published in 1987.

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Soil

RALA has also been involved jointly with the Icelandic **Soil Conservation and Reclamation Service** in a research and assessment program into the degradation of Icelandic ecosystems. Like the vegetation mapping, this focuses on the rangelands, which have suffered

overgrazing from domestic animals since the settlement days. Mapping of erosion features was carried out using 1:100,000 scale infrared LANDSAT images as a base, and a digital database has been constructed for all the rangelands. Simplified erosion maps have been produced for the local communities and for use in schools to increase awareness of problems of land degradation.

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Vegetation/Forestry

Another important thematic mapping project in Iceland has been the vegetation mapping prepared by the **Agricultural Research Institute** (**Rannsóknarstofnun Landbúnaðarins**, **RALA**)), but most recently taken up by **Náttúrfræðistofnun Islands**. This program was started in 1957 and includes the production of a series of 1:40,000 scale land cover maps of the highland areas, a number of lowland sheets of the Borgarfjorður district at 1:20,000 scale, and some more recent sheets of other lowland areas at 1:25,000. The object of this mapping is to aid in the evaluation of land quality for agricultural purposes, to determine stock-carrying capacity of the grazing lands, and to provide an objective basis for land management decisions. Base maps for the 1:40,000 scale vegetation map were the American 1:50,000 series (C762). **RALA** has also made a number of special vegetation maps of present or planned water reservoir areas.

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Atlas

Iceland has as yet no national atlas, although attempts to create one began in 1977, and an an editorial board was established more than a decade ago. In 1996, new plans were prepared for the production of a single-volume hard copy and electronic atlas and there has been some progress towards this goal. An editorial address for the **National Atlas of Iceland** has been established at the **University of Iceland**.

A comprehensive gazetteer by **Thorsteinn Jósepsson** and **Steindór Steindórsson** was reissued in an enlarged four-volume edition in the early 1980s. The volumes are illustrated with color photos and the entries include celebrated historical and physical features as well as settlements. More recently, in 1995, a handbook of Iceland was published on CD-ROM by the educational publisher **Námsgagnastofnun**, Reykjavík, which includes 200 maps and 2,500 locations as well as photos and video clips.

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Tourist/Reference

The Icelandic publisher, **Mál og Menning** (**MM**), has recently begun publishing high quality maps under its own imprint. These include a four-sheet tourist map of the whole country at 1:300,000 scale, and a single sheet map of the country at 1:600,000 scale.

A street map of Reykjavík is published by the city authorities, and was last revised in 1994. A 1:15,000 scale map of Reykjavík with street index is also published by **Falk Verlag/Cartographia**, Budapest. Tourist maps of the whole country are published by **LMÍ**, **MM** and by several overseas publishers, including **HarperCollins** and **Ravenstein**.

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